

TECHNOLOGY

**HOLYKELL®**

**HPT604**  
**LEVEL**  
• DATASHEET •

1. Pressure Measurement   **2. Level Measurement**   3. Temperature Measurement  
4. Flow Measurement   5. Display & Control Instruments  
6. Wireless Monitoring System   7. Velocity Measurement

# HPT604 (Type FW)

## Submersible Water Detector and Fuel Level & Temperature Transducer



### Features:

- Accuracy:  $\leq \pm 0.25\%F.S.$
- Wide working temperature scope
- Advanced digital temperature compensation
- Excellent resistance against impact, overload, shock and erosion.
- Water detection, fuel level & temperature optional
- Impact resistance and disturbance

### Applications:

- Fuel Tank Level Monitor Systems
- Water detection Under the diesel
- Water Under Oil and Fuel Level Monitor
- Oil and Water Separation Location Detection
- Position Detector Of Silt Layer
- Water Level Position Detector
- Fuel containers
- And so on

### Profiles

HPT604FW is full sealed submersible level transducer. Users can select different versions to detect water presence, fuel level and fuel temperature. It is made by high stable and reliable piezoresistive pressure sensor with water detection sensor and high accurate circuit board into the stainless steel housing. Integrated conductivity sensor and standard signal provide the user easy and convenient application in the local working place. The special cable connected with housing, can be immersed into the media for a long time.

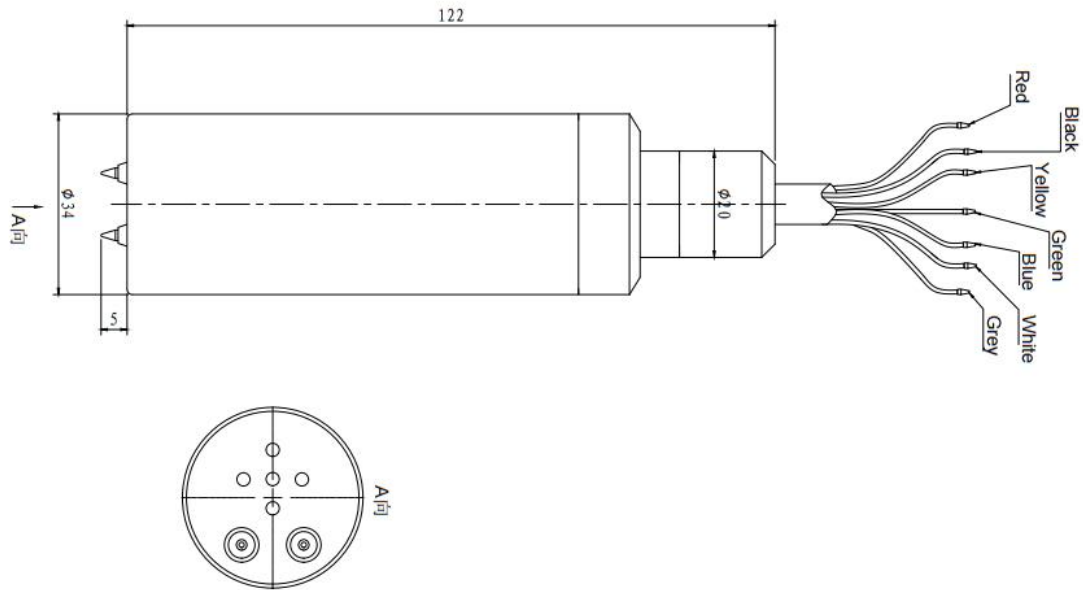
HPT604FW has compact size, light weight and good stability; it can be used for water alarm for the diesel tanks, water position and others hierarchy liquids level and position monitor.

### Specifications

Ambient Temperature: 25°C (unless otherwise specified)

PARAMETERS				
Level range	0m-0.5m...20m optional			
Pressure Type	Gauge pressure; Sealed gauge and absolute optional			
Overload	150%F.S			
Burst pressure	500%F.S			
Water Existence alarm Output	ohm, or PNP switch, or NPN switch signal output optional. Water detection signal: ohm signal (When $\geq 100 \Omega$ , it means that water has been detected, and 0 ohm means no water exists).			
Electrical Wires	3 wires	3 wires	3 wires	4 wires
Signal Output	4-20mA	0-5V	0-10V	RS485 Modbus RTU
Power Supply	7-30 V D	8-30 V DC	13-30 V DC	7-30 V DC
Polarity Protection	The power lines feature reverse polarity protection; however, the signal lines do not have reverse polarity protection against the positive power supply and must not be cross-connected.			
Accuracy(Linearity, Hysteresis, Repeatability)	$\leq \pm 0.5\%F.S$ (Typical); $\leq \pm 0.25\%F.S$ (optional); $0.1\%F.S$ (by customized) @25°C including non-lin., rep. and hys. optional			
Long-term Stability	$\leq \pm 0.2\%F.S/$ year			
Zero-point Temp. Drift	0.01%FS/°C			
Full scale Temp. Drift	0.005%FS/°C			
Power Consumption	24V: 2.8mA; 12V: 5.1mA; 5V: 10.1mA			
Compatible Medium	Compatible with SUS304			
Working Temp.	-40 °C to +85°C			
Medium Temp.	-20°C to +85°C			
Storage Temp.	-40°C to +85°C			
Temp.Compensation	0°C to 50°C; -10°C to 70°C (Range > 200 kPa / 20 mH <sub>2</sub> O)			
Load Resistance	Current: $(U-12)/0.02(\Omega)$			
Max work current	(4-20mA) 1.8mA	(0-5/10V) 5mA	(RS485 MODBUS RTU) 10mA	
Max signal transfer distance	1000m	200m	1000m	
Surge & Lightning Protection	Surge $\pm 2000V$ (digital); Air discharge $\pm 8000V$ ; contact discharge $\pm 6000V$			
EMC Standard	EN61326-1:2013;EN61326-2-3:2013 EN61000-6-2:2005;EN61000-6-4:2007+A1			
Certificate	ATEX (II 1G Ex ia IIC T5 Ga), TUV, RoHS and CE			
Water Proof Grade	IP68			

### Dimensions and Drawing



### Electrical Connections

Signal output	Wire color	4-20mA+100Ω	RS485+100Ω	0-5V/0-10V+100Ω
	Ohm signal	Red	U+	U+
Black		U-	U-	U-
Green		Iout(U-)	RS485A	Vout
Blue		R	RS485B	R
Yellow		R	R	R
Grey		⊥ Connect to earth ground	⊥ Connect to earth ground	⊥ Connect to earth ground
White			R	

Signal output	Wire color	4-20mA+PNP	RS485+PNP	0-5V/0-10V+PNP
	PNP signal	Red	U+	U+
Black		U-	U-	U-
Green		Iout(U-)	RS485A	Vout
Blue		PNP+	RS485B	PNP+
Yellow		⊥ Connect to earth ground	⊥ Connect to earth ground	⊥ Connect to earth ground
White			PNP+	

